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DIPHTHERIA AS OCCURRING IN ANNAPOLIS CO., NOVA SCOTIA.

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THE present epidemic "diphtheria" is neither more nor less than the old "putrid sore throat," but now spreading, both in Europe and America, in a more decidedly *epidemic form* than usual.

Formerly, when prevailing as an epidemic, it usually occurred in conjunction with scarlatina, especially in children, often attacking, at the same time, adults without scarlatina. Of late, it seems more independent of that disease, and may recur again and again in the same subject, after an interval of some months or years; at least, I have witnessed it three times in the same adult, within a few years—twice in a sporadic form, and very recently in the present epidemic.

During 1818 and the two subsequent years, this disease prevailed epidemically at "Tours" (France), and after the *post-mortem* inspection of many fatal cases, was written upon by M. Bretonneau, a physician of that city, and named by him "diphtherite," from its throwing out an incrustation, or false membrane, upon the surface, resembling the inner or rough side of skins—modernized into "diphtheria."

The great merit of M. Bretonneau's work, was in convincing the profession that ulceration, or disintegration of surface, was *seldom*, he says, "*never* observable, except occasionally in the slightest possible degree."

This disease being a compound of sore throat and typhoid fever, of course the symptoms will vary somewhat, according to the *type* of the disease. Hence it has been distinguished by the general terms—*acute* and *malignant*. It may be ushered in with the symptoms of ordinary sore throat, with more or less fever (and, of course, the less the fever, the milder and more amenable to treatment), and generally with swelling and tenderness of the glands

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of the neck, when the pharynx, tonsils and soft palate present a *deep red* and often a *glazed* appearance. After twenty-four hours or so, small spots, or patches of firmly adherent lymph, may be seen, generally on the tonsils, or often commencing between them and the anterior pillar of the fauces. The tonsils are not usually much enlarged, except when constitutionally so. The deposit, whether commencing in small points, or in a thin *flaky* patch, sometimes rapidly spreads over the tonsils, velum, uvula, and pharynx, &c., and becomes thickened, tenacious, and firmly adherent—called the *concreta* form—resembling “tripe” long macerated in hot water, or the rough side of thin “sole leather,” though of greyish, or yellowish-white color. In the morning, before being swabbed out, the surface is often dusky, and sometimes horribly fœtid.

The other form of deposit, called the “pultaceous,” is looser in texture, less cohesive, and, I think, less inclined to spread; though, as far as my experience goes, attended with a more rapid pulse, and fever more decidedly typhoidal. This, too, is also the more frequent form of the complaint. The pulse in children is sometimes 140, even on a first visit; and the tongue generally much coated, though sometimes dry and glazed. The nose is often affected with an acrid discharge; and a deposit or plugging, as in *malignant scarlatina*, often occurs, so as to necessitate an *open mouth* for maintaining respiration.

In some rare cases, as in weakly subjects, after fatigue followed by sudden cold, the surface of the throat suddenly assumes a dark and gangrenous appearance, accompanied by utter prostration; this, however, is only an exceptional appearance. The tendency, in all cases, is to spread both forwards and backwards; yet so long as the limits are visible, and especially if there be neither *hoarseness*, *loss of voice*, nor *croupy cough*, there exists a good prospect of recovery. When, however, in addition to these symptoms, *croupy breathing* (long, labored inspiration) supervenes, the danger becomes imminent—though, even then, recovery will sometimes take place.

CAUSES.—“Atmospheric influence,” operating more certainly with cold as an “exciting cause.” Also “contagion,” especially under similar circumstances.

The treatment naturally divides itself into the “local” and “constitutional.” If seen early, and before deposit is observable, a solution of nitrate of silver (3 i. or 3 ij. ad 3 i.) may be applied to all the reddened parts by means of a large camel’s hair brush; but if deposit were decided, the solid caustic is to be preferred, together with the frequent use of a gargle of strong salt and water, with the addition of pepper vinegar, or common vinegar in children. Also the strong hydrochloric acid, diluted with four to eight parts of water, may be applied occasionally, by means of a bit of fine sponge on the end of a stick. This lotion is more effectual than the salt gargle alone; and, by its use, flakes of false membrane are

often removed. In bad cases, I have often used the acid and honey in equal parts, as recommended by M. Bretonneau, with good effect. When the parts begin to clear off, the strength of the washes should be reduced.

GENERAL TREATMENT.—As the digestive organs are generally disturbed, it is often advisable to commence with an emetic, ipecac to be preferred; afterwards a dose of calomel and rhubarb, or rhubarb and senna, may be given. Should the appetite be very defective, and heat not much above the natural state, a little wine is necessary to rally the digestive function, as also beef-tea, broths, quinine, &c. In short, the treatment should be much as in typhoid fever (but without the sudorifics, the skin not being arid as in that disease), maintaining heat and countenance at a healthy standard—only bearing in mind that as the disease runs a more rapid course than fever, it may require stimulants earlier. Whatever may be the requirements of large towns, I feel bound to object, in the most decided terms, to the indiscriminate use of the *very large* quantities of brandy often resorted to in this disease; by which a temperate patient is flushed, like a bloated drinker, and latent or insidious inflammation, usually the immediate cause of death, is masked, or not recognized. Should, however, the disease spread to the larynx or trachea, or inflammation thereof be excited by a new cold during its progress, all stimulus must be withdrawn, and small doses of calomel and antimony be substituted, until the acute symptoms be overcome—after which time, *possibly*, a solution of carbonate of ammonia or other stimulating expectorants may be again advisable.

P. S.—For the use of solution of nitrate of silver in “diphtheria,” especially in the “croupy symptoms” thence resulting, the profession is indebted to Dr. W. McKenzie, the very celebrated oculist of Glasgow, so long ago as 1825.

August 2d, 1860.

MEDICAL ADVANTAGES OF VIENNA FOR AMERICAN STUDENTS.

[We have been permitted to publish the following extracts from a letter recently written from Vienna, by Dr. Hasket Derby, of this city. It certainly well illustrates, at least in one respect, the advantages claimed for that over other European cities, as the place for American students to complete their studies.—Eds.]

“I would give you,” says Dr. Derby, “a full account of the facilities for study here in Vienna, but you undoubtedly read Dr. Oliver’s letter, published in the Boston Medical and Surgical Journal some three years ago. This gave a very full description of the different courses and their advantages. To show you, however, how under this admirable system one can fill up his time with a single branch, I will give you a brief account of the facilities af-

forded for the study of the eye, that being the subject on which I have been working for the past six months.

"There are two professors in this branch—Arlt and Jaeger. The former is the associate of Graefe in the management of the "Archives of Ophthalmology," and the latter is well known through his extended researches with the ophthalmoscope. From 7 to 8, we follow his visit. From 8 to 9, a few of us have a private course on the theory and practice of eye diseases, with the chief assistant of Professor Arlt. From 9 to 10, we have Jaeger's course on the ophthalmoscope, two days in the week being theoretical, and the others devoted to the examination of cases, principally with the upright image. From 10 to 11, Arlt makes his visit, and lectures on the cases in his wards, performing, at the same time, any operations which may be necessary. In this, as in other departments, each student is obliged to have charge of a case, keep a full record of it, and be prepared at all times to be examined publicly on the nature and progress of the disease. Should he have neglected to comply with this condition, his papers are refused signature at the end of the term.

"From 11 to 12, Arlt holds his "ambulatorium," prescribing for the out-door patients, who come in great numbers; and from half past 12 to half past 1, he gives his private operation course to physicians only. His wide-spread renown as a skilful operator causes this course to be much sought for, and the participants are principally foreign physicians. We have every day a fresh head and a sufficient quantity of eyes from the slaughter-houses. He supervises personally all the operations, exercises each member of the class thoroughly in them, and devotes a portion of each week to their theory and application.

"In the afternoon we continue our theoretical course, make the visit with the assistant, and have a second course on the practical use of the ophthalmoscope, using this time the inverted image. Besides all this, by being a little intimate with the assistants, we have at all times access to the wards, and a good many opportunities to remove foreign bodies from the eye, apply nitrate of silver, &c.

"Thus you see the day is pretty well taken up with this one subject. Had I paid the least attention to it before I left home, I should be able to inform you in what points the practice here differs from our own. Extraction and discission are the operations we see most performed for cataract, couching being almost never employed. Extraction, especially, is a very favorite and frequent operation. Bowman, of London, is thought very highly of, and his operation of slitting up the lachrymal canal and sounding the tear sac, in cases of blennorrhœa of the latter, is always used. I have not seen a tear sac opened in the old-fashioned way since I have been here.

"Graefe's operation of artificial pupil for glaucoma is the common treatment of that disease, and I have in six months seen some most remarkable and brilliant results. Had I time and space, I would like to describe to you the operations for trichiasis; they are exceedingly ingenious and practical, leaving hardly any trace behind them."

CASE OF TUBERCLE OF THE BRAIN IN AN ADULT.

THE infrequency of tubercular disease involving the brain, except in young subjects, renders the case here recorded a remarkable one. Cruveilhier never saw an example of tubercle in the brain at the age in which it occurred in this case. Jones appears to have met with one instance out of 117 cases. Abercrombie gives one case at thirty-four years of age. In children, on the contrary, tubercle in the brain is a very frequent affection.

The situation of the tumor is another feature of interest. In children, tubercles are met with in the nervous substance in different localities, most frequently, perhaps, in the cerebellum. But in this instance the tumor lay beneath the brain, and was unconnected with its substance; it exercised considerable pressure on the brain, but evidently originated without it. It was equally obvious that it did not spring from the dura mater which lay beneath it, and from which it could readily be separated.

From a careful examination of the tumor and the surrounding parts, the author thinks it was developed in the substance of the ganglion of the fifth pair of nerves. Dr. Bright and others regard the gray neurines as the favorite nidus of cerebral tubercle, and the gray neurine of the ganglion may have been, in this instance, the seat of the deposit, which, as it enlarged, affected parts more remotely situated.

That the ganglion of the fifth nerve should be involved in a tumor of large size without intense suffering being the result, is not what we would, *à priori*, have expected; but the degree of pain produced by a tumor would seem to depend not only on the position of the tumor among the parts on which it exercises pressure, but also on the *nature of the morbid growth itself*.

Cancerous tumors in the cerebellum excite, as a general rule, much pain. Scrofulous tumors in the same situation are as generally painless. A scirrhus tumor, involving the casserian ganglion, gives rise to *tic douloureux* in its most agonizing and irremediable form. A scrofulous tumor of the same size, in the same locality, may, as this case illustrates, give rise to very little pain, and to none of a specially neuralgic nature.

The protrusion of the eyeball in the case in question is a symptom difficult to explain satisfactorily. The author is inclined to think that it may be accounted for by the obstacle presented by

the tumor to the return of the venous blood from within the orbit. The cavernous sinus was pressed upon, and consequently the ophthalmic vein and its tributaries were distended, as indeed the turgid condition of the veins of the upper eyelid indicated during life. The eyeball is so delicately poised in the orbit, between its antagonistic muscles, the obliqui and recti, that very slight pressure would disturb the balance, and cause protrusion. On the other hand, it may possibly have been the case that the nervous influence of both the third and sixth nerves was impaired, so that the power of all the recti and of the inferior oblique was diminished, in which case the undiminished and unopposed power of the superior oblique muscle would tend to draw the eyeball forwards. It is quite certain, however, that the characteristic symptoms of paralysis of the third pair of nerves *alone* did not exist, neither was there complete paralysis of the recti muscles, for the patient throughout retained the power of directing the eyeball in different directions. Whatever be the true explanation of this symptom, it may be worth recording that exophthalmia did, in this instance, exist, as a symptom of inter-cranial tumor, and that there was no prolongation or extension of the tumor into the orbit which could explain its occurrence.

CASE.—Patrick D——, a laborer, æt. 33, and a strong, healthy-looking man, applied on several occasions at the Whitworth Hospital, complaining of uneasy sensations, and sometimes of pain in his head. Occasionally, he had vertigo and impaired sensation in his hands and fingers. Blisters to the temples and behind the ears, with purgatives, generally gave him relief. On the 17th of March last, feeling much worse, he asked to be admitted into the hospital, and was accordingly taken into No. 1 ward. The man's appearance was greatly changed, he was much thinner, and had now a dull heavy look. He complained much of pain in his head and of weakness of his limbs. He answered questions very slowly, but always correctly. A few days subsequently he had become more listless; he had to be spoken to loudly, and a question had to be repeated several times before he comprehended what had been said. He walked with a staggering, uncertain gait, like that of one inebriated, and complained less than he had done some days previously. Having been freely leeched and mercurialized, a slight improvement was observed, but which quickly passed away, and a fortnight after admission his condition was altogether very remarkable. A lethargy more profound had crept over him; he slept much by day as well as by night. He never made any complaint, or mentioned any of his original symptoms, and remained always in bed. He now ceased to ask for his food, nor did he seem to feel hungry. When fed with a spoon, he swallowed the food and seemed to like it; but when food was placed in his hand, he never attempted to eat it. There was no paralysis, but the muscular power generally was impaired. He used both hands

freely, and was able to walk. When taken out of bed, he would stand wherever he was placed, and only walked when he was led or pushed forwards. The pulse was rather slower than usual; the respiratory motions markedly slow, and he sighed often and deeply. At this period the left eye was observed to become unnaturally prominent—the advance of the globe, at first slight, in a few days became more decided; the upper eyelid had an elongated appearance, and was of a darker color, while the vessels of the lid became large and turgid. No tumor could be felt on pressing through the lid, and the motions of the eyeball were unaffected. The iris was not paralyzed, the pupil contracted sluggishly, but this was equally the case on the right side. No material change occurred from this period; the patient seemed to become, if possible, less conscious of what went on about him, and at last nothing more than monosyllables could be extorted from him in reply to repeated questions. Both urine and fæces were now passed involuntarily. How long this patient might have lived in this condition, had no other disease supervened, it is difficult to conjecture.

The functions of relation were, no doubt, in abeyance; he had ceased to hold any communion with the world around by means of speech or locomotion. He was like a hibernating animal, with this difference, that he retained the undiminished power of evolving animal heat; but his condition more strikingly resembled that of the pigeons, whose central hemispheres Flourens had removed. Like them, he was plunged into a profound lethargy.

Capable, indeed, of performing automatic movements, but not capable of executing any connected or intellectual action, nevertheless the functions of organic life were unaffected, his wants were attended to, he was regularly fed, and nutrition was maintained.

However, on the 14th of April, a diphtheritic exudation appeared on the fauces, the breathing became difficult, and swallowing impossible, and death ensued on the 17th of April.

Post-mortem Examination.—A lobulated tumor, as large as a pigeon's egg, occupied the middle fossa of the base of the skull on the left side, which it completely filled, extending inwards to the side of the body of the sphenoid bone.

The cavernous sinus was encroached upon and compressed, and the nerves in the outer wall of the sinus were more or less involved in the tumor. The third pair, however, could be dissected off its upper surface.

The casserian ganglion was involved in the tumor, its filaments spread out, and not separable from it. The tumor, which on the surface was vascular, and of a grayish color, presented all the appearances of a scrofulous tubercle when cut into; part of it consisted of yellow crude matter, imperfectly laminated, the rest had broken into a semi-fluid mass, in which pus could be easily distin-

guished. The dura mater beneath it was unaffected, the middle lobe of the brain, which lay on the upper surface of the tumor, was deeply indented by it, and still more deeply softened and disintegrated.

The rest of the brain was healthy; no trace of tubercular development could be found in any other organ; even the lungs were free from the smallest deposit.—*Dublin Hospital Gazette*, May, 1860.

ON THE PHYSIOLOGY OF DIGESTION.

PROF. BUSCH, of Bonn, has had the opportunity of making experiments on digestion upon a woman who had been tossed by a bull, and presented, in consequence of the accident, a fistulous opening communicating with the small intestines. The fistula was so complete that the bowel was divided into two perfectly distinct halves. The upper portion consisted of the stomach, the duodenum, and of a probably minute piece of small intestine; the lower portion was composed of the remaining part of the small intestine, the colon, and rectum. Through the upper half, the food introduced into the stomach, as well as the digestive fluids of the latter organ, the liver and the pancreas, escaped, no part of them finding their way into the lower half. This state of things was therefore favorable to the study of the action of the stomach, of the biliary and pancreatic secretions, and also of intestinal secretions independently of the liquids just named.

One of the first effects of the pathological state of this woman was a considerable loss of flesh, as observed when she came into the hospital, six weeks after the accident. Her appetite was, however, insatiable, though she was as weak as those animals in whom artificial fistulæ are made. She was also very drowsy and cold; but this temperature was merely objective, for a thermometer introduced into the intestine marked a normal heat. All these symptoms disappeared when the patient recovered a little strength, in consequence of a generous diet.

She used to swallow an enormous quantity of food without feeling satisfied; but by thus eating largely she felt better, though still hungry. When the stomach was empty she felt ill. The woman was so thin that the coils of intestines could be seen through the parietes of the abdomen; and it was observed that their peristaltic movements were as energetic as those of that portion of the intestine situated above the fistula and open to view.

As the intestinal secretion or juice was perfectly pure and unmixed with any chyme, which latter all escaped by the fistula, a good opportunity was offered for studying the nature of that juice. Prof. Busch found the quantity always small, and tried its effects upon protein compounds, starch and cane-sugar, these being the

first experiments of the kind ever made. The patient was at the same time fed by the introduction into the lower part of the intestine, through the fistula, of beef-tea, beer, soups with flour, meat, hard-boiled eggs, &c. Soon after these injections were resorted to, she had numerous stools, a circumstance which had not been observed since the accident. The evacuations had a well-marked smell of putrefaction, without any undigested portions of meat or hard-boiled eggs being noticed in them; this being a clear proof that the intestinal juice acted as a solvent upon the food passing through the canal.

M. Busch used to wrap the various substances introduced in a piece of muslin, after having carefully weighed them, in order to observe the action of the intestinal juice. He noticed that it was principally upon starch that this juice exerted an energetic solvent power.

An interesting point was to find out what would become of fatty matter without the assistance of bile or pancreatic juice. According to expectation, fatty substances passed without being absorbed, or at least but a very small portion of them disappeared.

M. Busch also examined the state of the substances which escaped by the upper portion, namely, those which had been subjected to the action of saliva, the gastric juice, bile and the pancreatic juice. A very extraordinary fact observed was, the rapidity with which the alimentary substances escaped. In from fifteen to thirty minutes after the ingestion of the food by the mouth, it was observed to escape by the fistula; hard-boiled eggs appeared in from twenty to twenty-six and thirty-five minutes; cabbage took from fifteen to nineteen minutes; meat from twenty-two to thirty minutes; potatoes fifteen minutes. When the meal was plentiful, complete digestion required from three to four minutes (?).

The substances which escaped by the upper end of the divided canal seemed at first sight to have undergone but little change; they were, however, considerably softened, and the meat presented both longitudinal and transverse cracks or slits. M. Busch thinks that the fluid in which these substances were suspended contained no longer any saliva.

We add a few of the propositions which the author considers as proved by the experiments above enumerated:

1. The peristaltic movements of the intestines are as vigorous when the bowels are covered by skin as when they are exposed to the air; they withstand the pressure of a column of water two feet high.

2. The intestinal tube has periods of rest and motion.

3. The intestinal juice is secreted in small quantity; its reaction is always alkaline; and it contains, on an average, 5.47 per cent. of solid matter.

4. It decomposes starch and protein compounds.

5. It changes starch into grape sugar.

6. It decomposes protein compounds with the phenomena of putrefaction.

7. It does not change cane-sugar into grape-sugar.

8. Cane-sugar, when wholly absorbed, does not re-appear in the urine.

9. Fat which has not been brought in contact with the bile or pancreatic juice, is either not absorbed, or, if so, in very small quantities.

10. The first portions of the food introduced into the stomach reach the first third of the small intestine, on an average, in from fifteen to thirty minutes.

11. Cane-sugar held in solution disappears almost entirely at the beginning of the intestinal canal; any such cane-sugar which reaches the small intestine is changed into grape-sugar.

12. Unboiled white-of-egg is absorbed in the stomach, or the first part of the intestine; the portion which goes beyond has not undergone any change.

13. Gum is not changed into sugar; it passes into the intestines without alteration.

14. Gelatine becomes dissolved, and loses the faculty of coagulation.

15. Traces of caseine in solution are found in the intestine after the ingestion of milk.

16. Fat forms an emulsion with the fluids which find their way into the small intestine, when these fluids have an alkaline reaction; the emulsion is incomplete when they are acid.

17. The mixture of juices in the small intestine has a digestive action on the protein compounds.

18. The minimum of the digestive juices, which reach the upper part of the small intestine in twenty-four hours, weighs more than one-seventeenth part of the whole body.—*Archiv. für Path. Heilk. and Gazette Médicale de Paris*.

INVESTIGATIONS CONCERNING HYDROPHOBIA.

FROM a series of returns made upon this subject, from different departments in France, during several years, and epitomized by Dr. Tardieu, in the *Annales d'Hygiène Publique*, we glean some interesting information upon the following points:—

1. *The Species of Animal by which the Hydrophobia was communicated*.—Out of a total of 228 cases in which reference was made to this point, 188 were stated to have been produced by the bite of a dog, 13 by that of a cat, 26 of a wolf, and 1 by the bite of a fox. In two cases in which the bite of a cat produced the disease, one animal is reported to have become rabid in consequence of an extensive burn, another owing to its having been robbed of its young. These cases are of considerable interest, as they tend

to resolve the still doubtful question of the spontaneous development of hydrophobia in other species of animals than the canine.

II. *The season of the year at which this disorder is most frequently developed.*—This circumstance was noted in 181 cases, 110 of which occurred during the hot seasons of the year, 71 only during the cold. There is, doubtless, a marked difference in favor of the months in which the temperature is most elevated, but it does not remain a less constant fact that no season is really opposed to the development of hydrophobia, or can render its effects less formidable.

III. *The average number of persons who escaped the malady after being bitten.*—On this point we have the records of 198 cases of persons who were bitten, in many instances by the same animal; of these, 112 were subsequently seized with hydrophobia, whilst the remaining 86 experienced no ill effects. We need scarcely remark that numerous adventitious circumstances, such as the interposition of an article of clothing to which the saliva of the rabid animal might adhere, the state of the patient's mind or health after the injury, &c., would considerably influence the results in this particular.

IV. *The length of the stage of Incubation.*—In a large majority of cases this was not more than a few weeks. Out of 147 cases referred to, the period of incubation was under a month in 26, more than a month but under three months in 93 cases, whilst in the remainder the length of time occupied was from six to twelve months. The incubatory period appeared shorter in very young persons than at any other age.

V. *The length of time between the development of the disease and its fatal Termination.*—On this point the statistics collected corroborate too fully the preconceived ideas, as to the rapid progress of the disorder. Out of 161 cases death put an end, within a week, to the horrible sufferings of the patients in 158, more than one half of that number dying within four days, even, from the time at which the malady first manifested itself.

VI. *The relative effect of the means employed to prevent the development of Hydrophobia.*—Upon this all-important portion of the subject Dr. Tardieu observes that the fact cannot be too strongly insisted upon, that the only hopes of security from the fatal effects of this dreadful disease consist in immediate cauterization with the red-hot iron, and that every other method only compromises the future safety of the patient by the irreparable loss of the only moments during which the preventive treatment is applicable.

VII.—*Curative treatment of Hydrophobia when it has become developed.*—Dr. Tardieu makes the disheartening statement that of all the remedies which have as yet been suggested, chloroform included, for the treatment of hydrophobia when fully developed, he

has found none to have been attended with sufficiently promising results to enable him definitely to say that it will effect a cure.—*London Medical Review.*

GLUCOSURIA INDUCED BY THE PRESSURE OF A CLOT ON THE
FOURTH VENTRICLE AND MEDULLA OBLONGATA;
FATAL RESULT.

AT UNIVERSITY COLLEGE HOSPITAL, UNDER THE CARE OF Dr. PARKES.

THE production of sugar in the urine by the beautiful experiment of Bernard, of puncturing the floor of the fourth ventricle, has led pathologists to look for the same phenomenon when lesions have occurred in any way involving that particular part of the brain. We have the opportunity of placing before our readers a good and well-marked example of the kind, and one of an extremely rare and interesting nature. We will commence, however, by stating that the urine becomes highly saccharine in coma, and that sugar can also be produced in animals which are rendered comatose. We have no doubt that a similar condition of the urine is present during the stertor of apoplexy. It has been proved that the medulla oblongata exerts a special influence on the glucogenic function, and, as a matter of course, direct pressure upon it, or upon parts indirectly connected with or originating from it, like some of its nerves, gives rise to the same peculiarity. Mere irritation of the floor of the fourth ventricle, without puncture, will produce glucosuria; pressure upon the same part will likewise induce it. We are therefore prepared to understand how the urine in the following case, on being examined after death, was discovered to contain sugar.

Dr. Pavy has found that the great sympathetic, as well as the medulla oblongata, plays an important part in the production of sugar; for if some of the large filaments of this nerve lying close to the vertebral artery are divided, the urine will become charged with sugar in twenty minutes. It is produced in a still more marked and rapid manner, however, when the superior cervical ganglion is punctured or removed.

The prominent feature worthy of note in Dr. Parkes's patient was the encircling of the medulla oblongata by a clot of blood extending into the substance of the pons, and exercising considerable pressure on the fourth ventricle and its contiguous nerves. The coma produced under such circumstances would necessarily prove fatal, and the urine become saccharine, no doubt at the time or very shortly after the hæmorrhage commenced.

In regard to the question appended to the report of this case, we may observe that, if sugar is generated in coma, whether resulting from poison or from hæmorrhagic pressure, its presence in

the urine would afford no help in distinguishing between the two varieties. This is a point, however, well worthy of further investigation.

For the notes of the case, briefly taken, we are indebted to Mr. Wm. Murray, physician's assistant.

A man, who was found lying in the street, was brought to the hospital in a perfectly unconscious state, a sudden fall being the only point ascertained as to his previous condition or present attack. The case well illustrated that form of coma in which the diagnosis between cerebral pressure and narcotic poisoning is next to impossible. Thus there were no marks of external violence, no distinct odor of spirit, livid congestion of the head and neck, and complete loss of consciousness. There was no evident hemiplegia, nor deviation from symmetry of features; the respiration was slow, stertorous, and almost wholly diaphragmatic; the pulse slow and rather weak; pupils contracted equally. Gradual increase in the difficulty of respiration went on, and death ensued from asphyxia.

The autopsy disclosed congestion of the meningeal vessels, but nothing abnormal in the brain substance; no excess of fluid was present in the ventricles; but at the base of the brain a clot was found encircling the medulla oblongata, and extending upwards into the substance of the pons Varolii, which, from its situation, as seen at the time, must have caused considerable pressure on the fourth ventricle and the course of the pneumogastric nerves; the lungs were congested, otherwise they were healthy; the heart very large, weighing twenty-three ounces, from enormous hypertrophy of the left ventricle, and its wall an inch and a half in thickness; the aorta diminished in diameter by a large calcified patch, two inches from the valve; the kidneys were healthy, of notably firm consistence, but showing no excess of intertubular tissue on microscopic examination. The bladder was distended with urine, which was carefully examined by Dr. Harley, and found to contain sugar; the per-centage was not estimated, but it was sufficient to reduce the oxide of copper freely, and to give, when the urine was boiled with potash alone, a distinct brown color. The presence of sugar in the urine is a fact of considerable importance when it is remembered that by injuring the fourth ventricle in animals artificial diabetes can be induced.

It might be asked if, in a case like the preceding, the diagnosis could not be assisted by finding sugar in the urine of a patient who was known to be free from diabetes, or any influence which might cause the urine to contain sugar?—*London Lancet.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JULY 9th.—*Latent Pleurisy.* Dr. FIFIELD remarked that this case* well showed the extraordinary latency that pleurisy sometimes assumes.

The combination of phenomena observed is interesting, as setting at nought the rules given by authorities for the differential diagnosis between pneumonia, pleurisy with effusion, and phthisis with solidification of the whole lung, where bronchial or tubular respiration is present. Barth and Roger, in their *Traité Pratique d'Auscultation*, devote sixteen pages to the pathological signification of bronchial respiration. They give the following list of diseases in which it has been heard: inflammatory hepatization; considerable agglomeration of tubercular matter; extensive pulmonary apoplexy; certain cases of œdema of the lung; cancer; melanosis; aneurism of the aorta; hydro-pericarditis, without effusion into the pleura, or pneumonia; uniform dilatation of the bronchi. To these may be added, cases of simple hydro-thorax complicating disease of the heart, as observed by Dr. J. B. S. Jackson. So far as regards the distinction between pneumonia, phthisis and pleurisy with effusion, the case above narrated seems to contradict almost every one of the distinguishing symptoms pointed out by them as diagnostic. Thus these authors declare "that the bronchial respiration in pleurisy with effusion, is of little intensity, far from the ear, not distinct, not tubular, the reverse being true of pneumonia." Yet in the case recorded, and in many others of large serous effusion, observed by Dr. F., the bronchial respiration could not be stronger. In one case, he refrained from puncturing the chest because the bronchial respiration was so loud and seemed so near. Yet at the autopsy four quarts of serous fluid were bailed out of the pleural cavity. This co-existence of strong bronchial respiration with large serous effusion without inflammation, was first discovered by Dr. J. B. S. Jackson, and the name ægophonic respiration given to it by Dr. James Jackson, because it was heard in cases where ægophony likewise existed. This fact, stated many years ago by that faithful and respected teacher, Dr. J. B. S. Jackson, had made a profound impression on his mind, and each succeeding year has borne witness to the truth of his observations. A re-publication of his cases would be a boon to old pupils.

Barth and Roger say that the bronchial breathing in pneumonia is mixed with crepitus—in pleurisy it is unmixed. In the present case, fine crepitus was distinct in front at base. Again, they announce that in the former, bronchial respiration does not change its place by change of posture, the reverse in pleurisy. In our case, the respiration was unchanged by posture. They also say that in pneumonia bronchial respiration is strongest where percussion shows the greatest dullness, bearing strict relation to each other; that is, in whatever part of the chest dullness is found, there also bronchial respiration is heard. In pleurisy with effusion, on the contrary, where dullness is most marked, bronchial respiration is faintest. This is not true of the present

* See the preceding number, page 40.

case, nor did Dr. F. think it would be allowed to have been so by those who have observed similar ones. They say that, "in pleurisy it is rarely heard at the summit of the lung, more rarely at the sides, at the base and anterior regions." In this case, as well as in some others Dr. F. remembered, it was distinctly heard throughout the affected side of the chest. It is mentioned by our authors, and Dr. F. would particularly call the attention of observers to it, that in effusion, the bronchial or tubular sound is most distinctly heard in expiration; in pneumonia it is equally evident in inspiration or expiration. Dr. F. regretted not having paid attention to this point. They also say that it is produced in effusion by forced breathing, whereas in pneumonia it is heard when the patient is breathing in the most ordinary manner. It will be remembered that in this case bronchial respiration could be obtained beneath the left clavicle by forced respiration, after the apparent absorption of the liquid. Barth and Roger tell us that the crepitus redux follows bronchial respiration in pneumonia, when recovery takes place; silence of the respiratory murmur, that of pleurisy. Yet Mills exhibited crepitus redux. They teach us, that "if in certain cases of suspected pleurisy we find bronchial respiration throughout the lung, we should suspect pneumonia or tubercular solidification." Our lad had strong bronchial respiration everywhere in the affected side, yet the result of the case does not point to phthisis. He does not cough, and gains flesh. Bronchial respiration has not yet received all the attention it deserves from pathological anatomists. We need a numerical series to establish its most frequent cause and signification; whether it would be found in the majority to depend on solidification of lung, or on the acoustic properties of liquids. In children, it seems to be acknowledged that bronchial respiration points rather to pleurisy than to pneumonia. Barth and Roger say "that in an acute case in a child it indicates a pleurisy as well as a pneumonia." It has been Dr. F.'s fortune to have frequently heard bronchial respiration in pleurisy; and when, in a case of pneumonia as marked by the expectoration, &c., he hears it, he is as apt to attribute it to the occurrence of effusion, as to a hepatization, in fact, to a pleuro-pneumonia. In these latter days the revelations of the stethoscope do not command such unbounded faith as formerly. M. Trousseau doubts whether any body has heard the friction sound in pleurisy. The most learned in auscultation would hail the sight of rusty sputa, as tending to establish a stronger diagnosis than could be given by the stethoscope alone in a case of pneumonia. One word about stethoscopes. Camman's double one certainly brings out sounds with surprising power, and in phthisis reveals morbid sounds before they are audible to the unassisted ear, yet its story is to be received with a grain of salt. Dr. F. questions it closely in regard to crepitus, if fine; the motion of the tubes against the wax of the ears is apt to deceive. Also when ausculting near the division of the trachea into the bronchi in front, or over the shoulders behind, the listener is often startled to hear slight cavernous respiration, until reflection on the power of the instrument employed convinces him that it is only the continuation of the tracheal sound. Otherwise it might induce him to offer an unfounded prognosis.

JULY 23d.—*Fracture of the Ribs and Pelvis.* Dr. TOWNSEND showed the specimen, which came from a man 36 years of age, a painter by trade, robust and healthy, though intemperate. He fell from the roof

of the barracks, at the Charlestown Navy Yard, striking on his right side. The right leg was shortened, the foot inverted, the toes resting on the instep of the opposite foot, the knee semi-flexed. He was unable to move the limb, from pain. Being etherized, the thigh could be flexed at a right angle with the abdomen, the movement causing crepitus in the region of the head of the femur. The limb was drawn down to within half an inch of the length of the other, and Desault's splint was applied. Delirium tremens came on the next morning, and he died in forty-eight hours after the accident.

At the autopsy, it was found that there was a fracture of the ribs on the right side, extending from the fifth to the tenth, inclusive. The liver exhibited a number of superficial lacerations, on the upper and lower surfaces, the deepest being near the fundus of the gall-bladder. The tissues of the pelvis contained much blood. The head of the thigh-bone projected a short distance beyond the edge of the great sacro ischiatic notch, having followed the groove left by the displacement of a fractured portion of the acetabulum and bone behind, which was an inch and a half square, and three fourths of an inch in thickness. Fractures also extended between the socket and the ileum, and the socket and the obturator foramen.

Dr. GAY said he saw the patient when he was first brought into the Hospital. He was inclined to think the dislocation was produced there, during the examination.

Dr. H. J. BIGELOW remarked that the case came near being one of simple fracture of the edge of the socket, an exceedingly rare accident, and one which he never saw. What is usually taken for it, is, in fact, an impacted fracture of the head of the femur. In this case, along with the fracture of the socket, there is also fracture of the pelvis, causing a groove, in which the head of the femur was impacted, scoring the latter deeply.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 16, 1860.

MAINE MEDICAL SCHOOL.—There appeared in the JOURNAL, a week or two since, a communication signed "Hufeland," containing a resolution of the Maine Medical Association, expressive of the determination of that body not to countenance the act by which a grant of land was received by the Maine Medical School, on conditions at once tending to lower the standard of medical education and derogatory to the profession. The prompt and decided action on the part of the State Society evinces a high and honorable feeling among its members, which is certainly most creditable.

It seems, however, from the following communication, which we take much pleasure in laying before our readers, that the professors of the School have not only given assurances that they shall never depart from the principles which have hitherto guided them in the management of the Institution under their charge, but that it is the intention of the Trustees to relieve it, as soon as possible, from the embarrassment necessarily occasioned by the singular conditions attach-

ed to the legislative grant : a course which might have been anticipated from the first, when we consider the high professional and social position of many of those who compose the board of trustees, and which would have undoubtedly been pursued in the outset, had the exact force and bearing of the conditions been fully understood.

Messrs. Editors,—In your Journal of 26th of July, is a communication containing a copy of a resolution passed at a late meeting of the Maine Medical Association, relating to the Medical School of Maine, with comments by "*Hufeland*."

Far be it from us to judge the *intention* of the writer, but, as a lover of truth, we must say that the communication itself, in at least one important particular, is calculated to convey an entirely false impression.

The natural inference from his article is, that while the members of the Association generally disapproved of, and condemned the acceptance of the legislative grant with its obnoxious conditions, the members of the Medical Faculty of the College, who were present, *approved of* and *sustained* it.

Now what are the *facts* in this connection ? In the first place, a communication in writing was presented, bearing the signatures of all the Professors, to the effect, that the Association might rest assured that, so long as they continued their connection with the school, it would be managed, *in all respects*, upon the same good old principles as it always had been. Again, it was repeatedly stated in words that the unanimous sentiment of the Faculty was, that, sooner than consent to any modification of the present requirements, of which, however, there was no danger, they would resign their professorships *en masse*.

It is true that the lecturers present opposed the passage of the resolution, as did other able members of the Association, but the ground upon which they opposed it was plainly declared, viz., that they were not satisfied with the *terms* of the resolution. The two principal objections urged were, *first*, it would not convey to the Trustees so *courteous* or so *full* an expression of the views of the Association as was desirable ; *secondly*, that in expressing a disapprobation of the action of the Trustees, it would also tend to injure, for a time at least, the school itself, in whose usefulness and prosperity all expressed the liveliest interest.

The grant was doubtless accepted by the Trustees before they fully understood the bearings of its conditions, or the general sentiment of the profession in relation to them. They can have but one purpose or desire in relation to the Medical School, viz., to promote its usefulness. That the grant, with such provisions, would injure its usefulness, is now fully apparent, and they will of course adopt, at once, the most efficient measures to relieve it of the opprobrium at present resting upon it.

The Trustees and Overseers of Bowdoin College sustain a relation to the Maine Medical School, similar to that of the Corporation and Overseers of Harvard College to the Mass. Med. College, and to that of other University Boards to most of the best Medical Colleges in the land. The cause of medical education is *safe* in the hands of such men. "*Humanum est errare*;" but if they err, they will rectify. The two Boards of Bowdoin College are composed of the most distinguished and high-minded men in the State, of every profession. To

suppose that they would persist in any course which would tend to injure the reputation of the Medical School and tarnish the honor of the medical profession, is preposterous.

Meantime, in this moment of temporary embarrassment, what course should the friends of the School pursue? Some thirty or forty members were present when this subject was discussed at the late session of the Association in Bath, and they had an unquestioned right to express the sense of the meeting on this or any other relevant topic in the form of a resolution, but the moral responsibility of individuals cannot be discharged *vicariously*, and every physician must decide for himself what course he ought to pursue in this matter. We believe that the true friends of medical education in Maine, and the true friends of the School, will rally round it, in the full conviction that, in one way or another, it will speedily and satisfactorily be relieved from this embarrassment, and that they will not cease for a moment to *labor for and with it*. VERITAS.

P. S.—We have just learned that at the recent commencement at Brunswick, an able committee of the Trustees and Overseers was appointed to co-operate with the committee of the Maine Medical Association in this matter.

CRIMINAL ABORTION.—We extract the following remarks from the letter of a physician in a neighboring State to Dr. Walter Channing. The growing prevalence of this evil naturally arrests the attention of every one at all alive to the interests of humanity, whether physically or morally considered.

"I will take this occasion to ask if any one can foresee the result of criminal abortion, and other means of interrupting procreation, so extensively practised at this time? In localities where I am acquainted, though the population is chiefly Anglo-American, full three fifths of the children born and reared are of German, Irish, or other foreign parents, principally in the lower walks of life, who either have less repugnance to rearing families, or have not been initiated into and adopted 'modern improvements' (?). Waiving all consideration of the moral tendency, what is to be the physical result of this widespread violation of a great natural law? Is it invalidism and premature decay of the female portion of the present generation, and final decay of the race? It would seem that a very limited progeny, conceived by accident, and grudgingly borne after with-standing repeated intra-uterine assaults, must ultimately tell upon the character and condition of a race.

"In view of the alarming extent of the evil, and the inefficiency of legal enactments, may not able tongues and able pens interest and instruct at least the medical philosopher; or has enough been already said and written upon the subject?"

MORTALITY AMONG THE BLIND.—At the late meeting, at Newport, R.I., of the American Association for the Advancement of Science, amongst other subjects of general interest which engaged the attention of the members, we find the following—obtained from the experience of one who is well known in this department of science.

"From the largest mass of statistics ever collected on this subject, viz., 1,252 cases, furnished by Dr. Howe, Dr. Elliott has constructed a *biometre* or life-table for the blind, by which we are able to compute

a number of interesting and practical problems. He showed that the average of life among the blind was not nearly as great as among others, and traced their short-livedness to three causes: 1. Inherent deficiency in vital power. 2. Narrow range in the choice of employments and amusements. 3. The loss of this important sense exposing them to accidents and depriving them of the opportunity of protecting themselves.

"Dr. Howe remarked that if we take the belt of the north temperate zone, we find by computation that there have been about the same average proportion of blind persons in all ages as now, viz., about four or five thousand in every ten millions of population; and such a large element must have its effect upon society. Is this an essential or accidental condition in human society, or may it be guarded against? He took the latter view, and argued that if society would live up to the natural laws, congenital blindness would cease. The blind are commonly divided into two classes—those born blind, and those who become blind by disease or accident. The distinction, however, was not philosophical; there were rather those born blind, and those who, if not born blind, were born to become blind, from original lack of vital power. He instanced workers in mosaic as examples of the enormous capacity of endurance of the eyes; men also working in smoke and dust will wipe out great quantities of ashes and cinders from their eyes every night; in fact, it is almost incredible how much wear, tear and external injury may be endured by eyes originally sound. There were three chief causes of blindness: 1. Scrofula. 2. A general depraved bodily condition. 3. Inter-marriage among blood relations, especially where the temperament of the parties is similar; for it seems that similarity of temperaments, or what might be called *convergence of tendencies*, increases the evil of inter-marriage. Generally, the structure of parents or grandparents was originally unsound, or their ages were ill-assorted, or the crossing was insufficient. Disease seldom destroys sight in persons whose eyes were originally strong. The offspring of the blind was usually small in number, and feeble in general organic structure—though blindness caused by mechanical causes does not vitiate the offspring. The permanent cure for blindness as a condition of society, consists in man's power of adapting himself to the laws of his organization. Nature also has provided that in the struggle for persistent life, the blind will be overcome and disappear, which is only another mode of stating the old doctrine of the *vis medicatrix nature*—the tendency of nature to get back to normal conditions.

NEW MEDICAL JOURNALS.—Two remarkably well-printed and promising-looking medical periodicals have been received during the past week, both of which are marked by more than ordinary ability in the original and selected articles.

The Columbus Review of Medicine and Surgery, under the editorial care of Dr. W. L. McMillen, is published at Columbus, Ohio, and is advertised to appear on the first of every alternate month. The number before us contains several well-written reviews of recent medical works, besides much interesting original matter. It is the design, as stated in the introductory address, to give much space to original papers upon subjects of practical importance, while the department devoted to analytical reviews is to be made especially prominent.

The London Medical Review is a monthly journal containing much interesting medical information, and presenting the usual inviting appearance of the better class of English periodicals. Its design and scope may be gathered from the in-

troductory address, from which we quote the following:—"Having in view the advancement of science in general, and medical science in particular, we have made extensive arrangements in order to collect and record the progress of discovery and the results of experiments abroad as well at home."

Although it cannot be said that there is at present a dearth of medical periodicals, we shall be disappointed if the two before us do not prove an important and lasting addition to our medical periodical literature. We cordially wish them success.

HYDROPHOBIA IN ROXBURY.—We learn that a well-marked case of this disease terminated fatally in Roxbury on Sunday last. The patient, Thomas Dasecomb, was bitten by one of his own dogs about seven weeks ago. The first symptoms appeared on Thursday last, when he for the first time felt a disinclination to take water. The dog which bit the patient died a week after this occurrence, with all the symptoms of hydrophobia.

ARRIVAL OF THE BOOKS OF THE SYDENHAM SOCIETY.—We are requested to state that twenty-five sets of the Sydenham books, besides those subscribed for, have arrived, which may be had on early application. There are also a few copies of the past year's publications of the New Sydenham Society, which can be supplied to persons desiring them, for \$6.25 per set of five volumes. As the demand is quite urgent, application must be made soon to Dr. Salter, No. 1 Staniford St.

A CASE OF DEATH FOLLOWING THE INHALATION OF CHLOROFORM took place at Bellevue Hospital, New York, on the 1st inst. The patient was a man 40 years old, who complained of nothing but a chancre under the prepuce. Not more than an ounce of chloroform was administered, and the usual care in giving it seems to have been taken. The *Medical Times* states this to be the second case of death by chloroform in that Hospital within a year.

The Eighth Annual Meeting of the American Pharmaceutical Association will take place in New York, Sept. 11th, at 3 o'clock, P.M.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 11th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	61	57	118
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	55	40.4	101.4
Average corrected to increased population,	116.3
Deaths of persons above 90,

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
9	41	6	3	2	1	4

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	29.955	Highest point of Thermometer,	89°
Highest point of Barometer,	30.174	Lowest point of Thermometer,	65°
Lowest point of Barometer,	29.816	General direction of Wind,	S.W.
Mean Temperature,	74° 1	Whole am't of Rain in the week	1.14 in.

BOOKS RECEIVED.—O'Reilly on the Anatomy and Physiology of the Placenta, the Connection of the Nervous Centres of Animal and Organic Life. New York. (From the Author.)

DIED.—In Hamilton, Ohio, Dr. Robert B. Millikin.—In Dayton, Ohio, July 17, Dr. Job Haines.

Deaths in Boston for the week ending Saturday noon, August 11th, 118. Males, 61—Females, 57.—Accidents, 3—congestion of the brain, 3—disease of the brain, 4—inflammation of the brain, 1—cholera infantum, 41—cholera morbus, 2—consumption, 9—convulsions, 5—debility, 2—diarrhea, 1—puerperal disease, 2—dropsy, 1—dropsy of the brain, 6—drowned, 1—dysentery, 4—scarlet fever, 6—typhoid fever, 1—hemorrhage (uterine), 1—disease of the heart, 2—intemperance, 2—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 3—measles, 2—old age, 1—paralysis, 1—pleurisy, 1—smallpox, 1—suicide, 1—sunstroke, 1—ulcer, 1—unknown, 3.

Under 5 years, 73—between 5 and 20 years, 9—between 20 and 40 years, 16—between 40 and 60 years, 14—above 60 years, 6. Born in the United States, 91—Ireland, 20—other places, 7.